golf swing and hip rotation connector

The invention relates to a new golf swing and hip rotation connector as well as its use as a training device for learning to play golf, especially for learning a good golf swing and proper tee.

A large number of auxiliary exercise means are known in the field of learning to improve one's golf swing while playing golf. The objective of all these means is to perform a good golf swing. This golf swing on the other hand is closely related to the leading arm, striking arm and the golf player's body.

US Pat No. 4,691,924 describes a golf training device which consists of a first band surrounding the chest and a second band surrounding the golfer's leading arm.

A similar golf training device is described in US Pat No. 3,970,316.

Although these known golf training devices according to US Pat. Nos. 4,691,924 and 3,970,316 offer some progress in training the golf swing, they are still not optimal especially concerning an effective golf swing and hitting the golf ball.

It is the object of the present invention to develop a training device for learning to play golf which better controls the sequence of movement of the body, and the arms in particular, while playing golf and allows in particular a more effective golf swing and better precision in hitting the golf ball.

This object is achieved in accordance with the invention in such a way that a new golf swing and hip rotation connector was developed which advantageously consists of a combination of mutually connected shoulder and chest belt via an intermediate band with a loop as a hip and leg band.

Said new golf swing and hip rotation connector comprises the following:

a) a circumferentially adjustable chest belt 1 which is attached over the chest of a golf player which on its part comprises a length-adjustable double belt strap which in combination with the chest belt 1 rigidly surrounds the leading arm of the golf player and holds said arm back, with the double belt strap on its part consisting in the part surrounding the leading arm of a rubber belt strap 2 and 3 and the chest belt further comprising a length-adjustable belt strap 4 which is fixed on its part to the chest belt 1 and rests over the shoulder of the leading arm of the golf player to whose end there is attached a belt strap 5 and to its other end a belt strap 6 with an angle each of between 45° and 75° to the chest belt 1 and on whose ends there is attached one closure apparatus 7 and 8 each, with the end of the belt strap 4 and the joining place of the belt strap 5 with the closure apparatus 8 being situated on the back when carried and the joining place of the belt strap 6 with the closure apparatus 7 being attached directly adjacent to the rubber belt strap 2 and 3 and the other end of the belt strap 4, with the closure apparatus 8 being connected via

b) an intermediate band 9 with

c) the belt strap 11 of the loop 10 and the closure apparatus 7 directly connected with the belt strap 12 of the loop 10, with the belt strap 11 representing on its part a length-adjustable belt strap and the belt strap 12 a length-adjustable belt strap and the two belt straps 11 and 12 stand at an angle of 75° to 110°, especially 90°, with respect to each other.

The following explanations in connection with figs. 1 to 3 (Figs.) illustrate the golf swing and hip rotation connector in accordance with the invention in closer detail.

Fig. 1 shows the entire combination parts of the of the chest belt 1 including the rubber belt straps 2 and 3 and the belt strap 4 with the intermediate band 9 and the loop 10 for the new golf swing and hip rotation connector;

Fig. 2 shows the sole chest belt 1 including the rubber belt straps 2 and 3 and the belt strap 4, and

Fig. 3 shows a detailed view of the rubber belt straps 2 and 3.

The reference numerals have the following meaning in said figures 1 to 3:

1 = The chest belt which preferably consists of a non-elastic belt strap. The circumferential length is approximately 1000 mm to 1500 mm, preferably 1100 mm and is adjustable. The width of the chest belt is between 40 mm and 60 mm, preferably 50 mm, and its thickness is between 1 mm and 1.5 mm, especially 1.2 mm.

The chest belt 1 can be opened by means of a buckle attached to the chest belt 1 and can be adjusted simultaneously in its circumference and its length, with the closure appropriately being made by means of a Velcro fastener, with the Velcro fastener being fixed to the outside of the chest belt 1, or with the chest belt 1 being provided with a snap buckle at position 1/1 for example (fig. 1).

2 = Outer rubber belt strap, and

3 = inner rubber belt strap jointly form a double rubber belt strap which is elastic and is fixed on the one side to the chest belt 1 and can be closed on the other side by means of a belt strap 2/3 by a buckle in the length by means of a Velcro fastener. The outer rubber belt strap 2 has a free surface and is suitable for outwardly applying a LOGO. The width of the inner and outer rubber belt strap is 80 to 120 mm each, especially 100 mm, the thickness 0.8 mm to 1.2 mm, especially 1.0 mm, and the length is 300 mm to 400 mm, preferably 350 mm. The inner rubber belt strap 3 is used especially to cover any sewing work arising by the attachment of the LOGO on the inside of the outer rubber belt strap 2. When carrying the chest belt 1, the golf player's leading arm is situated between the outside of the rubber belt strap 3 and the chest belt 1, i.e. the rubber belt straps 2 and 3 are situated close to each other and appear visually as a uniform band.

The double belt strap which consists of the outer rubber belt 2 and the inner rubber belt 3 can also consist of only a single rubber belt strap 2 or 3 in accordance with a variant of the invention.

A further embodiment of the invention provides an advantageously downwardly facing and fastened closure (13, fig. 1), e.g. a snap buckle, between the two rubber belt straps (2) and (3) in order to fasten a leading arm rail with a joint (at the level of the arm joint).

4 = A belt strap which is carried over the shoulder (shoulder belt strap). It is connected rigidly at both ends with the chest belt 1 and can be adjusted in its length and opened by means of a buckle closure.

The fixing of the belt strap to the chest belt 1 is situated at the one end directly close to the buckle (4A, fig. 1) for adjusting the length of the rubber belt straps 2 and 3, and at the other end approx. 200 mm away from the fixing of the rubber belt straps 2 and 3 to the chest belt 1. Belt strap 4 is not elastic, has a length of 400 to 500 mm, preferably 450 mm, a width of 20 mm to 35 mm, especially 25 mm, and a thickness of 0.8 to 1.5 mm, especially 1.0 mm.

5= A belt strap of a length of approximately 20 mm to 50 mm, especially 30 mm, and a width of 20 to 35 mm, especially 25 mm, and a thickness of 1.0 to 1.5 mm, especially 1.2 mm, which is fastened with one end to the chest belt 1 at the fastening point of the belt strap 4 and comprises a closure apparatus at the other end, especially a snap buckle, with which the belt strap 5 can be connected via the closure apparatus 8 with the intermediate part 9.

6= A belt strap of a length of approximately 20 mm to 50 mm, especially 30 mm, and a width of 20 to 35 mm, especially 25 mm, and a thickness of 1.0 to 1.5 mm, especially 1.2 mm, which is fastened with one end to the chest belt 1 and comprises a closure apparatus at the other end, especially a snap buckle, with which the belt strap 6 can be directly connected with the loop 10 via the belt strap 11.

5/6= The angles of the fixed belt strap 6 to the chest belt 1 and the fixed belt strap 6 to the chest belt 1 can be mutually independent or preferably dependent and are 45° to 75°, in particular 60°.

7/8 = Closure apparatuses, especially snap buckles on the belt straps 5 and 6.

9 = Non-elastic belt strap which is used as an intermediate band from the belt strap 5 of the chest belt 1 to the belt strap 11 of the loop 10. The length without the closure connections is approx. 180 mm to 230 mm, especially 200 mm, with a width of 22 mm to 30 mm, especially 25 mm, and a thickness of 0.8 mm to 1.5 mm, especially 1.2 mm. The two closures, preferably snap buckles, on the belt strap 9 are fixed to the respective ends of the belt strap.

10 = A loop, preferably a non-elastic belt strap with a circumference of approximately 300 to 800 mm, especially 600 mm, a width of 45 mm to 60 mm, especially 50 mm, and a thickness of 1 mm to 1.5 mm, preferably 1.2 mm. This loop can additionally optionally be equipped with an elastic rubber band with a width of 80 mm to 130 mm, especially 100 mm, and a thickness of 0.8 mm to 1.5 mm, especially 1.0 mm, which is fastened to the loop 10 at two opposite points approximately in the middle of loop 10, so that it rests horizontally on the thigh when being worn. It can be provided on its part with a LOGO facing outwardly.

The loop (10) can advantageously also be interrupted by and provided with a length-adjustable snap buckle at location 10/1 (fig. 1) for example.

11 = A non-elastic belt strap which is fastened to one end of the loop 10 and is length-adjustable, having a length of approximately 220 mm to 270 mm, especially 250 mm, a width of 22 mm to 30 mm, especially 25 mm, and a thickness of 1 mm to 1.5 mm, especially 1.2 mm, and which is provided at the other end with a closure apparatus, especially snap buckle, for joining with the intermediate band 9.

12 = A non-elastic belt strap which is fastened to one end of the loop 10 and is length-adjustable, having a length of approximately 500 mm to 600 mm, especially 550 mm, a width of 22 mm to 30 mm, especially 25 mm, and a thickness of 1 mm to 1.5 mm, especially 1.2 mm, and which is provided at the other end with a closure apparatus, especially snap buckle, which is used to directly join with the chest belt 1 at the closure point 7.

The two non-elastic belt straps 11 and 12 are mutually fastened to the loop 10 at an angle of 75° to 110°, preferably 90°.

A preferred embodiment of the golf swing and hip rotation connector in accordance with the invention for a grown person is that said connector consists of the following:

a) a circumferentially adjustable non-elastic chest belt 1 with a width of 50 mm and a thickness of 1.2 mm which, when worn, is attached over the chest of a golf player, which belt comprises on its part a length-adjustable double belt strap which in combination with the chest belt 1 rigidly surrounds the leading arm of the golf player and holds said arm back, with the double belt strap on its part consisting in the part surrounding the leading arm of an outside elastic rubber belt strap 2 and an inner elastic belt strap 3, which each have on their part a width of 100 mm, thickness of 1 mm and a length of 350 mm, and the chest belt 1 further comprising a length-adjustable non-elastic belt strap 4 which has a length of 450 mm, a width of 25 mm and a thickness of 1 mm and which on its part is fixed to the chest belt 1 and, when worn, rests over the shoulder of the leading arm of the golf player to whose one end there is attached a belt strap 5 of 30 mm length and to whose other end a belt strap 6 with a length of 30 mm, with each being fastened to the chest belt 1 at an angle each of approximately 60°, and on whose ends there is attached one snap buckle 7 and 8 each, with the end of the belt strap 4 and the joining place of the belt strap 5 with the snap buckle 8 being situated on the back when worn and the joining place of the belt strap 6 with the snap buckle 7 being situated directly adjacent to the rubber belt strap 2 and 3 when worn, with the snap buckle 8 being connected via

b) an intermediate band 9 with

c) the belt strap 11 of the loop 10 and the snap buckle 7 directly with the belt strap 12 on the loop 10, with the belt strap 11 representing on its part a length-adjustable belt strap of 250 mm length, 25 mm width and 1.2 mm thickness, and the belt strap 12 representing a length-adjustable belt strap of 550 mm length, 25 mm width and 1.2 mm thickness, and with the two belt straps 11 and 12 being fastened to the loop 10 at an angle of 90° with respect to each other.

The advantages of the golf swing and hip rotation connector in accordance with the invention over the known devices allow a precise control of the movements and position of the leading arm when striking the golf ball, namely both hip rotation as well as downward swing, as a result of the combination of chest belt 1 and hip belt 10 via an intermediate belt 9. This combination of a mutually connected chest belt 1 and hip belt 10 leads to a controlled sequence of the striking arm, with the upper arm of the leading arm being rigidly connected to the chest, so that the elbow is not allowed to pivot outwardly during the strike. The leading arm is also better supported by the shoulder belt strap 4. The belt width of the chest belt 1 is kept narrow, leading to comfortable wearing (especially for ladies). The hip belt combined with the chest belt 1 also leads to an increase in the swing sequence because the hip is automatically rotated forwardly. All this leads to a virtually automatic optimal golf swing and thus to an excellent tee. The dream comes true for many practicing golf players to hit the golf ball optimally when learning to play golf.

The golf swing and hip rotation connector is worn over garments and is put on very quickly by pulling the chest belt 1 over the golf player's chest. Then the leading arm is positioned between the chest belt 1 and the double belt strap consisting of the rubber belt straps 2 and 3 and finally the belt strap 4 is pulled over the shoulder of the leading arm. Secondly, the loop 10 is then pulled over the diagonal thigh to the leading arm and is connected via the intermediate belt 9 or directly with the chest belt 1. Thirdly, the entire combination of the golf swing and hip rotation connector is tightened and set by means of the attached buckle closures.

The golf swing and hip rotation connector in accordance with the invention is used as a training device especially in golf schools, golf academies, etc. as well as in private use at home or in the garden both for male and female golf players, and both left-hand and right-hand players.

The golf swing and hip rotation connector in accordance with the invention is both suitable for golf players using the right arm as the striking arm and the left arm as the leading arm as well as for such golf players who use the left arm as the striking arm and the right arm as the leading arm.

The new golf swing and hip rotation connector can be produced in any size, i.e. both in children's sizes for boys and girls as well as in adult sizes for men and women. It can be removed easily from the body, can be washed (hand washing), is light weight (approximately 300 to 400 grams) and is comfortable to wear.

The illustrations (figs. 1 to 3) show the golf swing and hip rotation connector in accordance with the invention in closer detail.